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Jeffrey C. Hood
Meyertons, Hood, Kivlin, Kowert & Goetzel
P.O. Box 398
Austin, TX 78767

EXAMINER	
PHAM, CHRYSTINE	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/602,557	MAKOWSKI ET AL.	
	Examiner	Art Unit	
	Chrystine Pham	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 March 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18 and 26-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18 and 26-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to Amendment filed on March 09, 2007. Claims 1-18 have been amended. Claims 19-25 have been canceled. Claims 26-28 are new. Claims 1-18, and 26-28 are presented for examination.

Preliminary Matters

2. It should be noted that Specification contains informalities, which were objected in the previous Office Action (page 2), however Applicants had failed to make appropriate correction in this Amendment. Thus, the objection to the Specification is maintained and re-generated herein for completeness.

Response to Amendment

3. Applicants have amended claims 1-18 to change the previously recited "carrier medium" to the currently recited "computer accessible memory medium". However, this amendment is insufficient and cannot overcome the rejection of claims 1-18 under 35 USC 101 established in the previous Office Action (pages 2-3). First, the 'memory medium', as claimed, does not exclude itself from being the 'carrier medium' described on pages 13-14 of the Specification. Furthermore, since the Specification describes the 'memory medium' to include 'carrier medium', which can be mere *signals* conveyed via communication and transmitted to/by a networked computer (i.e., computer accessible), the 'memory

medium' is not limited to a statutory manufacture, and thus remains rejected, herein, under 35 USC 101.

Response to Arguments

4. Applicant's arguments filed March 09, 2007 have been fully considered but they are not persuasive.

Argument 1: "Nowhere does Zink teach or suggest **displaying a display window comprising a plurality of graphical program nodes for use in a graphical program**" (Emphasis from original) (Remarks, page 9). It should be noted that, in attempt to distinguish this limitation from what is taught by Zink, Applicant points out that Zink's *602* 'is a menu bar that " provide access to a set of *drop-down menu* that *provide* many *useful functions* like adding components to the drawing, saving the drawing, and *configuring the target hardware*" (Remarks, page 9). It is respectfully submitted that this feature of Zink, that is to say, providing a drop-down menu that provide functions (i.e., function nodes) such as configuring the target hardware (i.e., device configuration), clearly anticipates the limitation of claim 18 (i.e., function nodes related to device configuration). It should be understood that Zink is directed to a graphical programming (i.e., letting the users specify programs by manipulating program elements *graphically* rather than by inputting actual code textually)(see at least col.1:40-50). Thus, by providing the drop-down menu providing useful functions (i.e., represented by visual nodes associated with actual programming code), a user-selected functions collectively

become the resulting graphical program that is used (i.e., executed) to configure the target hardware.

Argument 2: "Zink fails to **teach wherein the plurality of graphical program nodes comprise a hierarchy of graphical program nodes, wherein said hierarchy comprises: a first plurality of function nodes displayed in the display window**" (Emphasis from original) (Remarks, page 10). As established in the previous Office Action (page 6), FIG.6 of Zink clearly disclose *Visual workspace 600* for *displaying* fully annotated graphical drawings including block diagrams for electrical hardware and block diagrams of software. Visual workspace 600 presents the following *visual interactive elements*: *menu bar 602, tool bar 603*, and client area 604 (see at least col.3:45-55). As pointed by Applicants (Remarks, page 9), *menu bar 602* provides access to a *set of drop-down menus* that *provide* many useful *functions* like adding components (i.e., functional graphical nodes) to the drawing, saving the drawing, and *configuring the target hardware*. Similarly, col.4:17-24 of Zink specifically discloses *tool bar 603*, which provides a row of icon-buttons to permit rapid access to functions that are most commonly used (i.e., primary). In this example, the *tool bar functions* from left to right are: new drawing, open a file, save the drawing, cut, copy, paste, add a component to the drawing, *build, run, stop, reset the target hardware*, add a probe, add an audio probe, and lastly, turn on the data viewer. Thus, menu bar 602 (comprises clickable buttons that expand to drop-down menus) and tool bar 203 clearly anticipate "**wherein the plurality of graphical program nodes comprise a hierarchy of graphical**

program nodes, wherein said hierarchy comprises: a first plurality of function nodes displayed in the display window, wherein each function node corresponds to a respective functionality".

Argument 3: "Zink does not teach a second plurality of property nodes displayed in the display window, wherein each property node corresponds to a respective one of at least a subset of the plurality of function nodes, wherein each property node is displayed proximate to said respective one of the at least a subset of the plurality of function nodes" (Remarks, pages 10-11).

As established in the previous Office Action (page 6) and as pointed out by Applicant (Remarks, page 11), col.11:52-67 explicitly discloses utilizing software (i.e., function) components (represented by graphical nodes/icons/buttons) to produce instructions. The same passage further discloses said graphical function nodes having user-accessible properties (i.e., property nodes associated with the graphical function nodes). Col.13:57-col.14:10 of Zink emphasizes that components (i.e., graphical function nodes) represent functionality of both hardware and software. The same passage explicitly discloses the user configuring the property settings for (i.e., property nodes associated with) each component (i.e., graphical function node) on the drawing. The same passage further discloses user access to property settings (i.e., property nodes) which can be in the forms of list-boxes, icons, drop-down lists, dialog windows, or wizards (i.e., graphical nodes). Col.15:45-50 of Zink explicitly discloses the user "double-clicking" on a block (i.e., graphical function node) to invoke (i.e., display) the

block's property dialog window in order to access/modify the property settings (i.e., property nodes) associated with the block (i.e., graphical function node). Thus, contrary to Applicant's argument, Zink clearly teaches "a second plurality of property nodes displayed in the display window, wherein each property node corresponds to a respective one of at least a subset of the plurality of function nodes, wherein each property node is displayed proximate to said respective one of the at least a subset of the plurality of function nodes".

5. In view of the foregoing discussion, rejection of claims under 35 USC 102(e) and 103(a) is considered proper and maintained.

Specification

6. The disclosure is objected to because of the following informalities: The provisional application being referenced in lines 1-2 of page 1 does not have the proper serial or application number. Appropriate correction is required.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1-18, 26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 1

Merely recited as "a computer accessible memory medium comprising program instructions ...", the claim does not limit the memory medium (i.e., signal) to a statutory manufacture. Furthermore, at least page 14 of the Specification discloses the memory medium including carrier medium as comprising signals such as electrical, electromagnetic, or digital signals, conveyed via a communication medium such as a bus, network and/or a wireless link. Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in Sec. 101. First, a claimed signal is clearly not a "process" under Sec. 101 because it is not a series of steps. The other three Sec. 101 classes of machine, compositions of matter and manufactures "relate to structural entities and can be grouped as `product' claims in order to contrast them with process claims." 1 D. Chisum, Patents Sec. 1.02 (1994). The three product classes have traditionally required physical structure or material. "The term machine includes every mechanical device or combination of mechanical device or combination of mechanical powers and devices to perform some function and produce a certain effect or result." Corning v. Burden, 56 U.S. (15 How.) 252, 267 (1854). A modern definition of machine would no doubt include electronic devices which perform

functions. Indeed, devices such as flip-flops and computers are referred to in computer science as sequential machines. A claimed signal has no physical structure, does not itself perform any useful, concrete and tangible result and, thus, does not fit within the definition of a machine. See Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, Annex IV (c) <http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>

Claims 2-18 and 26

Claims are rejected because they fail to remedy the deficiency of base claim 1.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1-10, 12-13, 15-18 and 26-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Zink et al. (US 6,738,964 B1, "Zink").

Claim 1

Zink teaches a computer accessible memory medium comprising program instructions, wherein the program instructions are executable to implement (see at least FIGS.4-5 & associated text): displaying a display window comprising a plurality of graphical program nodes for use in a graphical program (see at least *602, 603* FIG.6 & associated text); wherein the plurality of graphical program nodes comprise a hierarchy of graphical program nodes, wherein said hierarchy comprises: a first plurality of function nodes displayed in the display window, wherein each function node corresponds to a respective functionality (see at least *602, 603* FIG.6 & associated text; col.4:12-23; col.11:52-60); and a second plurality of property nodes (see at least col.11:60-67) displayed in the display window, wherein each property node corresponds to a respective one of at least a subset of the plurality of function nodes (see at least *1502* FIG.13 & associated text; col.12:52-col.13:7; col.13:57-col.14:1), wherein each property node is displayed proximate to said respective one of the at least a subset of the plurality of function nodes (see at least col.15:45-50; FIG.17B & associated text).

Claim 2

The rejection of base claim 1 is incorporated. Zink further teaches wherein each of the first plurality of function nodes comprises a polymorphic function node; and wherein each polymorphic function node corresponds to a respective generic functionality, wherein each function node is type-switchable between each of a plurality of function node types, and wherein each function node type corresponds to a respective specific functionality (see at least *602* FIG.6 & associated text; col.4:12-16).

Claim 3

The rejection of base claim 2 is incorporated. Zink further teaches wherein each of the first plurality of function nodes has a default function node type, and wherein the default function node type corresponds to a respective default specific functionality for the function node (see at least col.15:55-60).

Claim 4

The rejection of base claim 1 is incorporated. Zink further teaches wherein the first plurality of function nodes are organized in the display window in accordance with one or more of: order of use in a typical graphical program development session; frequency of use in a typical graphical program development session; and functional relationships among the first plurality of function nodes (see at least *603* FIG.6 & associated text; col.4:17-20).

Claim 5

The rejection of base claim 1 is incorporated. Zink further teaches wherein the first plurality of function nodes comprises two or more of: a channel creation node; a read node; and a write node (see at least col.4:13-24; col.4:64-col.5:5).

Claim 6

The rejection of base claim 5 is incorporated. Zink further teaches wherein the first plurality of function nodes further comprises: a wait until done node (see at least col.4:13-24; col.4:64-col.5:5).

Claim 7

The rejection of base claim 5 is incorporated. Zink further teaches wherein the two or more of the channel creation node, the read node, and the write node comprise a primary set of function nodes (see at least col.4:13-24; col.4:64-col.5:5).

Claim 8

The rejection of base claim 7 is incorporated. Zink further teaches wherein the first plurality of function nodes further comprises one or more of: a timing node; a triggering node; a start node; a stop node; and a clear node (see at least col.4:13-24; col.4:64-col.5:5).

Claim 9

The rejection of base claim 8 is incorporated. Zink further teaches wherein the one or more of the timing node, the triggering node, the start node, the stop node, and the clear node comprise a secondary set of function nodes; and wherein the primary set of function nodes and the secondary set of function nodes are displayed in the display window in respective groups (see at least *602, 603* FIG.6 & associated text).

Claim 10

The rejection of base claim 9 is incorporated. Zink further teaches wherein, in displaying the primary set of function nodes and the secondary set of function nodes in the display window in respective groups, the primary set of function nodes is displayed in a first row in the display window and the secondary set of function nodes is displayed in a second row in the display window (see at least *602, 603* FIG.6 & associated text).

Claim 12

The rejection of base claim 1 is incorporated. Zink further teaches wherein each of the second plurality of property nodes comprises a function specific property node corresponding to a respective function; and wherein each function specific property node comprises one or more parameters for configuring corresponding attributes for the graphical program (see at least *1502* FIG.13 & associated text; col.12:52-col.13:7; col.13:57-col.14:1; col.15:45-50; FIG.17B & associated text).

Claim 13

The rejection of base claim 12 is incorporated. Zink further teaches wherein the second plurality of property nodes comprises two or more of: a channel property node; a timing property node; a triggering property node; a read property node; and a write property node (see at least *1502* FIG.13 & associated text; col.12:52-col.13:7; col.13:57-col.14:1; col.15:45-50; FIG.17B & associated text).

Claim 15

The rejection of base claim 1 is incorporated. Zink further teaches wherein each function node comprises a function node icon, and wherein the function node icon comprises a first image; wherein each property node comprises a property node icon and wherein the function node icon comprises a second image; and wherein the second image comprises a version of the first image, indicating the correspondence between the property node and the corresponding function node (see at least *1502* FIG.13 & associated text; col.12:52-col.13:7; col.13:57-col.14:1; col.15:45-50; FIG.17B & associated text; FIG.6 & associated text)

Claim 16

The rejection of base claim 1 is incorporated. Zink further teaches wherein the program instructions are further executable to implement: displaying one or more tool icons in the display window, wherein each tool icon represents a respective graphical program development tool, and wherein each tool icon is user-selectable to invoke the respective graphical program development tool (see at least FIG.6 & associated text).

Claim 17

The rejection of base claim 1 is incorporated. Zink further teaches wherein the program instructions are further executable to implement: displaying one or more function palette icons in the display window, wherein each function palette icon represents a respective

sub-palette of one or more additional function nodes and/or one or more additional function palettes (see at least FIG.6 & associated text).

Claim 18

The rejection of base claim 17 is incorporated. Zink further teaches wherein the one or more function palette icons are user-selectable to invoke display of one or more of: a palette of function nodes related to advanced device configuration; a palette of function nodes related to advanced task configuration; and a palette of one or more additional sub-palettes comprising miscellaneous advanced function nodes (see at least col.11:52-60).

Claims 26-28

Claims recite limitations, which have been addressed in claims 1 and 5, therefore, are rejected for the same reasons as cited in claims 1 and 5.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zink in view of Kellerman et al. (US 6,750,887 B1, "Kellerman").

Claim 14

The rejection of base claim 13 is incorporated. Zink further teaches wherein, in each property node being displayed proximate to the respective one of the at least a subset of the plurality of function nodes, each property node is displayed in one of: a common row with the respective one of the at least a subset of the plurality of function nodes (see at least *1502* FIG.13 & associated text; col.12:52-col.13:7; col.13:57-col.14:1; col.15:45-50; FIG.17B & associated text). Zink does not expressly disclose and a common column with the respective one of the at least a subset of the plurality of function nodes. However, Kellerman teaches a method for managing a construction or creation of graphical user interface wherein each property node is displayed in one of a common row with the respective one of the at least a subset of the plurality of function nodes and common column with the respective one of the at least a subset of the plurality of function nodes (see at least col.4:8-50; FIG.1 & associated text). Zink and Kellerman are analogous art because they are both directed to programming GUIs. It would have been obvious to one of ordinary skill in the pertinent art at the time the invention was made to incorporate the teaching of Kellerman into that of Zink for the inclusion of a "column" (as an alternative order of displaying nodes). And the motivation for doing so would have been to address the problem of laying out (i.e., organizing and displaying) visual components (graphical nodes) of a GUI in a pleasing arrangement with minimum developer effort (see at least Kellerman col.3:35-52).

Claim 11

The rejection of base claim 9 is incorporated. Claim recites limitations, which have been addressed in claims 9 and 14, therefore, is rejected for the same reasons as cited in claims 9 and 14.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chrystine Pham whose telephone number is 571-272-3702. The examiner can normally be reached on Mon-Fri, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on 571-272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TUAN DAM
SUPERVISORY PATENT EXAMINER